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44 (3) SWEN BCA-HC-3016

2021

(Held in 2022)

SOFTWARE ENGINEERING

Paper : HC-3016

Full Marks : 80

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer any eight questions.

1. Define the following terms : $2 \times 5 = 10$

Software process, Software crisis, Build and fix method, Delphi cost estimation techniques, Code walkthrough.

2. (a) What do you mean by software development life cycle? What are the main stages of waterfall model?

$1 + 3 = 4$

(b) Define Code Review. 2

(c) What do you mean by phase containment of error? What are the entry and exit of different phases of waterfall model? 4

Contd.

3. (a) Define function point metric. What are the main objective of function point metric? 3
- (b) Explain Delphi cost estimation technique briefly. 3
- (c) Define SRS. What are good characteristics of an SRS document? 4
4. (a) Explain briefly the working of spiral model. 5
- (b) What do you mean by coupling and cohesion? Explain. 5
5. (a) What are the main advantages of CASE tools? 4
- (b) Explain why every software system must undergo maintenance or progressively becomes less useful. 4
- (c) Define adaptive maintenance. 2
6. (a) What are the major responsibility of the software project manager? 4
- (b) What do you mean by size of the software project? Why a project manager needs to estimate the size of the project? 6

7. (a) List the desirable quality of a good SRS document. 4
- (b) Why is SRS document also known as Black Box specification of a system? 3
- (c) What according to your characterize a good software design? 3
8. (a) What do you understand by the exploratory style (Build and fix) style of software development? What are shortcomings of this approach? 6
- (b) Define debugging. What are different activities of debugging? 4
9. Write short notes on : **(any two)** 5×2=10
- (a) Risk Management
- (b) COCOMO
- (c) Integration testing
10. (a) What do you mean by testing? Explain the difference between Black Box testing and White Box testing. 2+4=6
- (b) Define fault based and coverage based testing. 4